

REMARKS

Claims 19-22, 24 and 26-60 are pending in this application. New claims 46-60 have been added by this Amendment.

The Office Action dated August 12, 2002 rejected each one of the pending claims (claims 19-22, 24, and 26-45) as being obvious in view of one of four different combinations of references. Applicants respectfully traverse the rejections for at least the reasons provided below.

Translation of Japanese Priority Application

The certified copy of the Japanese priority patent application was filed on October 22, 1996 in parent application no. 08/690,358 (now U.S. Patent No. 5,991,747). In view of the significance of the claimed priority date of August 2, 2002, applicants obtained and attached a full English-language translation of the Japanese priority patent application to the Amendment filed on May 24, 2002. Although the Office Action did withdraw one of the references being relied upon in the rejection, it did not acknowledge the translation or indicate that applicants were entitled to the claimed priority date. Applicants respectfully request that the Examiner acknowledge receipt of the English-language translation of the Japanese priority application and that applicants are entitled to the claimed priority date.

Obviousness Rejections

The Office Action rejects each one of claims 10 and 19-45 as being obvious over one of four different combinations of references. Applicants respectfully traverse each one of the

four different rejections. In addition to the specific reasons provided below for specific groups of the rejected claims, applicants now respectfully traverse all of the rejections for the following reason commonly applicable to all of the rejections.

Each one of the rejections relies upon the device described in U.S. Patent No. 4,906,828 issued to Halpern (this device hereinafter referred to simply as "Halpern"), modified in part in view of an article in the Los Angeles Times dated August 9, 1993 entitled "Transportation: Promoters Hope Advertising and Marketing Gimmicks will Steer Freeway Drivers to the Region's First Pay as You Go Highway" (this newspaper article hereinafter referred to simply as "LA Times"). Applicants respectfully submit that the obviousness rejections fail to establish a *prima facie* case that one of ordinary skill in the art would be motivated to make the combination of references proposed in the rejections.

Each one of the independent claims (claims 20, 21, 30-32 and 36) recites the features of an IC card having "a loan information storage which stores information representing a loan" and of writing information representing a loan "into said loan information storage when said electronic money information representing a balance is less than said amount of money to be paid for the commercial transaction" or substantially similar features. The obviousness rejections apparently acknowledge that Halpern does not contain these features, but assert that LA Times teaches the features and "that prepaid accounts are allowed to carry negative balances." The rejections assert that it would have been obvious to modify Halpern to include these features because of LA Times and that the motivation would be to describe "a loan transaction process for implementation on IC cards which permits the storage of negative

values, and equivalently, loans" and "an electronic purse employed for electronic funds deductions used to make loans."

First, there is no indication that the smart card in LA Times has "a loan information storage which stores information representing a loan" as recited in all of the independent claims. LA Times refers to negative balances in the "accounts" rather than in a storage in the smart card. It states that "[i]f their accounts are too low, they [the accounts] will be allowed to carry a negative balance." (underlining added) There is no indication that the negative balance is maintained on the smart card, much less that the smart card has a "loan information storage which stores information representing a loan" as recited in the independent claims. Indeed, the indication in LA Times is that the motorists must "set up a prepaid account" and that they "will be notified and asked to deposit additional funds in their accounts." In particular, in the section marked "How to Use the Toll Road" at the end of LA Times, it is indicated that the antennae reads the smart card and that the motorists' account is charged. There is no indication that any information is written to the smart card.

Secondly, applicants submit that LA Times would not motivate one of ordinary skill in the art to modify Halpern. LA Times describes a toll road with toll booths to be opened in California. It envisions that cars will use dashboard-mounted transponders and smart cards inserted into the transponders like computer floppy disks "to exchange billing and vehicle information with a roadside computer, thus eliminating the need to slow down or stop at toll booths".

The rejection mistakenly refers to a freeway rather than a toll road having a toll booths. This obscures the teaching of the reference, which is directed to toll roads and to the

toll collection system thereof. This context becomes clear when the following portion of the reference is considered:

"The experience with toll roads in other states is that the failure to pay is mostly deliberate rather than accidental, but is limited to 2% or less of the traffic volume.

To deter scofflaws, Orange County tollway officials plan to adopt an ordinance imposing stiff fines. The operations committee overseeing the Foothill Corridor recently recommended a \$76 fine--three times the cost of a parking ticket but about half that of a typical speeding citation.

Two agency committees have recommended that violators be given 10 or 20 days to mail in a payment. After that, a \$10 processing fee would be added to the bill. After 20 to 30 days, officials would levy the fine.

Multiple violations are expected to draw tougher penalties, but at levels not yet specified.

Motorists with transponders and prepaid accounts would have a slight advantage. If their accounts are too low, they will be allowed to carry a negative balance. But they will be notified and asked to deposit additional funds in their accounts.

'We view those as our chief customers, and we want to give them as much benefit of the doubt as we can,' said Alice Bridge of Lockheed Corp., the firm hired to design, build and operate the toll collection system.

Violators will be entitled to an administrative hearing set up by the corridor agency. But officials haven't decided yet how the matter would be taken to court later if necessary.

The violation ordinance, as currently proposed, would hold drivers and vehicle owners--even car rental companies--responsible for unpaid tolls and fines."

Taken as a whole, the LA Times newspaper article describes efforts made to provide for flexible accounts associated with the toll collection system. The particular concern addressed by the paragraphs quoted above is that motorists, who pass through a toll booth connected to a roadside computer without slowing down or stopping, might unintentionally incur a traffic violation if their account balance is too low when they pass through the toll booth. Thus, the teaching of LA Times is that a motorist's prepaid account associated with a toll collection system should be permitted to have a negative balance so that the motorist will not be charged with a traffic violation if their account has an insufficient balance when they pass through the toll booth without slowing down or stopping.

There is no discussion in LA Times of smart cards generally and one of ordinary skill in the art would not apply the teaching therein to smart cards generally were it not for the hindsight provided by this application. Generally, if a smart card does not have a sufficient

balance for a transaction, then the result is that the transaction will not be allowed to occur. However, LA Times addresses a situation in which the transaction will occur whether or not there is a sufficient balance and the consequence is that the motorist unintentionally commits a traffic violation. The teaching of LA Times applies to toll collection systems, and there is no reason why one of ordinary skill in the art would apply the teaching of LA Times to Halpern except hindsight employed in an attempt to reject the claims of this application.

Claims 27, 29-31, 36-37 and 42-43

The grounds for the obviousness rejection of claims 27, 29-31, 36-37 and 42-43 is set forth in parts 5-13 on pages 2-9 of the Office Action. This rejection relies upon U.S. Patent No. 4,963,722 to Takeuchi as teaching "loan information storage which stores information representing a loan comprising an IC card reader/writer which reads information stored in said IC card and writes information to the IC card" (citing col. 3, lines 4-49, and col. 3, lines 65, to col. 4, line 2). However, Takeuchi does not describe or teach a loan or stroing information representing a loan. To the contrary, Takeuchi states that "When the payment exceeds the maximum value allotted to the purchases card, the customer can make a payment by cash for the shortage, or by another purchase card." (see col. 3, lines 55-60).

Applicants also note that the rejection is unclear since it relies upon both Takeuchi and LA Times as teaching this feature and, presumably, modifying Halpern accordingly. If repeated, the rejection should be clarified to indicate whether Takeuchi and LA Times are alternative secondary references or if it is intended to rely upon both references simultaneously.

Claims 19-21, 24, 28, 32-35, 39, 41 and 44-45

The grounds for the obviousness rejection of claims 19-21, 24, 28, 32-35, 39, 41 and 44-45 is set forth in parts 14-27 on pages 9-21 of the Office Action. The rejection also relies upon Takeuchi in the same manner as the rejection of claims 27, 29-31, 36-37 and 42-43 and applicants therefore traverse the rejection for the same reason set forth above.

Claims 20, 30 and 35

In addition to the reasons provided above, claims 20, 30 and 35 are believed to be allowable for the additional reason that they recite features providing for an upper limit of the loan. The rejections of claims 20, 30 and 35 rely upon the portion of the circuitry of Halpern shown in Fig. 11 of U.S. Patent No. 4,906,828 (see page 5, lines 1-3, in the rejection of claim 30; and page 19, lines 9-11, in the rejection of claim 35). While this circuitry may describe an upper limit, it is the upper limit of the amount of value which can be stored in the card. It is understood that the upper limit in Halpern is not the upper limit of the loan as recited in claims 20, 30 and 35 since Halpern the rejection acknowledges that Halpern does not provide for a loan.

Claims 21, 31 and 34

In addition to the reasons provided above, claims 21, 31 and 34 are believed to be allowable for the additional reason that they recite features providing for a term limit of the loan. The rejections of claims 21, 31 and 34 rely upon the same portion of the circuitry of

Halpern shown in Fig. 11 of U.S. Patent No. 4,906,828 as the rejections of claims 30 and 35. However, the rejection mistakenly fails to address the fact that claims 21, 31 and 34 address the term of the loan while claims 20, 30 and 35 address the upper limit of the loan. Nevertheless, the noted circuitry in Halpern provides for an upper limit of the amount of value which can be stored in the card - it does not provide for a term limit of the loan. Furthermore, it is understood that the upper limit in Halpern can not possibly be the term limit of the loan as recited in claims 21, 31 and 34 since the rejection acknowledges that Halpern does not provide for a loan.

Claims 32-35

In addition to the reasons provided above, claims 32-35 are believed to be allowable for the additional reason that independent claim 32 (claims 33-35 are dependent on claim 32) recite the features that the terminal "transmits loan information corresponding to said loan to said center when said electronic information representing a money balance is less than the amount of money to be paid for said commercial transaction, and said storage of said center stores said loan information." The obviousness rejection of claim 32 relies upon the balance storage method described at col. 3, lines 4-49, and col. 3, lines 65, to col. 4, line 2, of U.S. Patent No. 4,963,722 to Takeuchi (see the sentence bridging pages 14 and 15 of the Office Action). Applicants have reviewed the cited portions of the Takeuchi patent and cannot find any indication of these recited features.

New Claims 46-60

Notwithstanding the above reasons in traversal of the obviousness rejections of the previous claims, applicants have presented new claims 46-60, including independent claims 46, 51 and 56. Claims 46, 51 and 56 are substantially similar to previous independent claims 30 and 31, respectively, except that they recite only one memory rather than two separate balance and loan memories. Nevertheless, new claims 46-60 recite the same two features recited in all of the previous independent claims and argued above to distinguish over the applied references. Applicants therefore submit that the new claims are allowable for at least the same reasons as the previous independent claims.

A Credit Card Payment Form for \$632.00, which includes the fee for the additional claims is submitted simultaneously herewith. To the extent necessary for the consideration of this Amendment, Applicants petition for an extension of time under 37 CFR §1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees or additional claim fees, to Deposit Account No. 01-2135 (Case No. 501.34746CX1) and please credit any excess fees to such deposit account.

Respectfully submitted,

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